

A nasal cannula assembly as recited in claim 10 wherein main supply tube is manufactured from a polyvinyl chloride compound comprising at least a portion of polyvinyl chloride resin having an average molecular weight of at least about 100,000.

[c16]

A length of extension tubing having at both open ends a pliable hollow tubular connector with a wall thickness several times greater than thickness of said extension tubing and intended to be forced over a rigid fitting and held in place by friction;

one said pliable connector in communication with a nasal cannula assembly connected thereon to receive or transmit gas and/or signals,

second said pliable connector in communication with a source of gas and/or sensing device,

[c17]

Extension tubing recited in claim 16 having a 10% tensile modulus less than 200 psi.

[c18]

Extension tubing recited in claim 16 having a compression set less than 45% at 23 degrees C per ASTM D-395.

[c19]

Extension tubing recited in claim 16 manufactured from a polyvinyl chloride compound comprising at least a portion of high molecular weight polyvinyl chloride resin wherein the high molecular weight polyvinyl chloride has an average molecular weight of at least about 100,000.

## Abstract of Disclosure

[0061] A nasal cannula providing gas delivery with greater comfort for the patient is disclosed. The material properties of the support tubing and the novel shape and light weight of the nosepiece provide consistent and proper positioning and orientation of the gas delivery nares within the nostrils with very little tension on the tubing, thus eliminating sores on the ears and under the nose, grooves or creases on the face and tightness under the chin. The nares are shaped to direct the gas flow into the open chamber of the pharynx rather than against the nasal walls thus eliminating ulcerous conditions and the tips of the nares are so flexible that the presence of the device within the nostrils causes little sensation to the wearer. Further, the elasticity of the tubing

allows the user to pull the unit away from the nose to provide temporary access for a tissue to blow one's nose. Due to the special properties of the tubing, the device recovers from the coiled shape in the package immediately upon removal thus providing an immediate proper and comfortable fit and the unit remains flexible in cold weather. This device is also useful for sensing breathing patterns to study ventilation or for sampling exhaled gases.

## Figures